

# Shoeburyness High School

## Sixth Form Subject Information

# Mathematics

## *A-Level*



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[www.shoeburynesshigh.co.uk](http://www.shoeburynesshigh.co.uk)

# Mathematics A-Level

## Subject Information

**Exam board:** Edexcel ([www.edexcel.com](http://www.edexcel.com))

### **Assessment Scheme**

The course is assessed through three examinations at the end of Year 13:

### **Paper 1 & Paper 2 : Pure Mathematics**

Proof, Algebra and functions, Coordinate geometry, Sequences and series, Trigonometry, Exponentials and logarithms, Calculus, Numerical methods, Vectors

*All 3 papers are 2-hour written examinations worth*

*33.33% each. 100 marks per paper.*

### **Paper 3: Statistics and Mechanics**

#### **Section A: Statistics**

Statistical sampling, Data presentation and interpretation, Probability, Statistical distributions, Hypothesis testing

#### **Section B: Mechanics**

Modelling in mechanics, Kinematics, Forces and Newton's laws, Moments



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# Mathematics A-Level

## Entry requirements

**Pathway 2 entry requirements:** 5 GCSEs at Grade 5 and above

**Subject entry requirements:** Grade 6 at GCSE in Mathematics from the Higher Tier.



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# Mathematics A-Level

## Career Progression

There's a demand for mathematicians and statisticians across a range of sectors. Mathematicians work in the petroleum and nuclear industries, medicine and health, IT, business consultancy and operational research, space science and astronomy, as well as many forms of engineering and different government departments.

Typical employers include:

- the NHS
- local and central government
- educational establishments
- the pharmaceutical industry
- IT companies
- engineering companies
- insurance companies
- market research and marketing companies
- finance, banking and accountancy firms.

There are also opportunities for employment with publicly-funded-research institutes or government agencies.



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# Mathematics A-Level

## University progression

For any degree with a numerate component, A Level mathematics is highly valued of course. It seems to be acknowledged that the generic skills developed in A Level maths are very valuable.

A level Mathematics is a requirement for certain degree courses, such as Engineering, Physics, Statistics, and often Economics. Although not a requirement, A level Mathematics is a typical subject taken by students on courses as wide ranging as Architecture, Law and Psychology.

A level Mathematics is useful for those interested in apprenticeships in Accounting, Engineering, Teaching and Technology. You can view more information about studying maths beyond GCSE on the [AMSP website](#).

You can gain a variety of different skills from maths including problem solving, data analysis, attention to detail and communication skills.



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# Subject Title & Level

## Contact Information

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